

37. The medical device according to claim 36 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazoniumdiolated polyamine-functionalized polymer forms micro-beads.

38. The medical device according to claim 36 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazoniumdiolated polyamine-functionalized polymer forms amorphous masses.

39. The medical device according to claim 37 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazoniumdiolated polyamine-functionalized polymer micro-beads have diameters ranging from approximately 1  $\mu\text{m}$  to approximately 100  $\mu\text{m}$ .

40. The medical device according to claim 37 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazoniumdiolated polyamine-functionalized polymer micro-beads have pores.

41. The medical device according to claim 37 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazoniumdiolated polyamine-functionalized polymer micro-beads have pores ranging in size from approximately 5 to 500,000 Å.

42. The medical device according to claim 38 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazoniumdiolated polyamine-functionalized polymer amorphous masses have pores.

43. The medical device according to claim 38 wherein the highly cross-linked, extremely hydrophobic nitric oxide-releasing biocompatible polydiazoniumdiolated polyamine-functionalized polymer amorphous masses have pores ranging in size from approximately ranging from 5 to 500,000 Å.

44. The medical device according to claim 25 wherein said medical device is selected from the group consisting of stents, vascular grafts, pacemaker leads, heart valves, electrodes, sensors, trocars, guide wires, catheters, penile implants, condoms, tampons, sanitary napkins, ocular lenses, sling materials, sutures, wound dressings/bandages, blood collection bags, storage tubes, and tubing.